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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,586	02/12/2004	Roger Howard Williams III	U 015456-6	4935
27730 7590 08/19/2008 JOHN W. GOLDSCHMIDT, JR. ESQUIRE DILWORTH PAXON LLP 3200 MELLON BANK CENTER 1735 MARKET STREET PHILADELPHIA, PA 19103				
EXAMINER				
SUBRAMANIAN, NARAYANSWAMY				
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3691				
MAIL DATE		DELIVERY MODE		
08/19/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/777,586

Applicant(s)

WILLIAMS, ROGER HOWARD

Examiner

Narayanswamy Subramanian

Art Unit

3691

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 105 and 107-111 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 105 and 107-111 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. This office action is in response to applicant's communication of April 30, 2008. Amendments to claims 105 and 107-109 and addition of new claims 110-111 have been entered. Claims 105 and 107-111 are pending in the application and have been examined. The response to affidavit, rejections and response to arguments are stated below.

Response to Affidavit

2. The affidavit under 37 CFR 1.132 filed on April 30, 2008 has been considered but is insufficient to overcome the rejection of claims 105 and 107-109 based upon the second paragraph of 35 U.S.C. 112 and 35 U.S.C. § 101 as set forth in the last Office action because what is reasoned in the affidavit and what is claimed by the Applicants are not the same features. As explained in the rejections below and in the response to arguments, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. For further clarification the Applicant's are directed to the discussion of rejections and the response to arguments given below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 110-111 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

invention. These claims recite in the preamble “medium storing instructions adapted to be executed by a computer processor to perform a method for use in issuing an interest-bearing instrument in a subject market, the instrument having a debtor, a creditor, a sensitivity to parameter changes, an extension risk, a credit risk, and an underlying obligation having a principal size, an interest rate, and a payment timing”. However there is no written description of any “medium storing instructions adapted to be executed by a computer processor” in the specification as originally filed.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 105 and 107-111 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 105, 108 and 110 recite the limitations of “processing in a computer processor data regarding providing that the instrument's sensitivity to parameter changes incorporates, unconstrained by time, an agreement by the debtor and the creditor upon the principal size and the interest rate chosen from any possible combination or permutation of principal size and interest rate; processing in the computer processor data regarding providing that the instrument's extension risk and credit risk, unconstrained by time, be completely subject to the creditor's and debtor's control through a calculation of an agreement upon interest rates; processing in the computer processor data regarding providing that any options in the subject market, unconstrained by time are made explicit, priced, and used to correlatively adjust the principal size, the interest rate, and the payment timing of the underlying obligation”. It is not

clear as to what is the outcome of these steps. For instance in claim 105, it is not clear as to what is the outcome of “processing in a computer processor data regarding providing that the instrument’s sensitivity to parameter changes incorporates, unconstrained by time, an agreement by the debtor and the creditor upon the principal size and the interest rate chosen from any possible combination or permutation of principal size and interest rate”. In a broad sense this interpreted as “processing in a computer processor data regarding providing a clause”. It is not clear as to what happens when data regarding providing something is processed. There is no indication that data regarding the clause is processed. What appears to be processed is the data regarding providing something. Similar ambiguities are present with the other limitations of the claim. These ambiguities render the scope of the claims unclear. These claims also recite the limitation “any options in the subject market, unconstrained by time, are made explicit, priced”. It is not clear if how the options are related to the interest bearing instrument. Are these the options on the interest bearing instrument or are these options on some other underlying instrument? These ambiguities in these claims make the scope of the claim unclear. Claims 107, 109 and 111 are rejected by dependency on the rejected independent claims.

Claims 107, 109 and 111 recite the limitation “pricing and capturing the value of the debtor or the creditor’s regulatory capital savings is done using the following equation”. It is not clear how the pricing and value of the debtor or the creditor’s regulatory capital savings (RCS) is related to an interest-bearing instrument in a subject market. In other words the relationship between RCS and the process of issuing is not clear. Is RCS related to the value of the interest-bearing instrument? Hence it is not clear how the limitations of these claims further limit the independent claims they are dependent. Appropriate clarification/correction is required.

In view of these ambiguities the Examiner is unable to provide meaningful art rejection for the pending claims.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 105 and 107-111 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory Subject matter.

35 USC 101 requires that in order to be patentable the invention must be a "**new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof**" (emphasis added).

Claims 105 and 107-111 are rejected under 35 U.S.C. § 101 for failing to produce useful, concrete and tangible result. Claims 105, 108 and 110 recite the steps of processing in a computer processor data regarding providing clauses that doesn't ensure anything real world, so it lacks tangibility. As discussed in the 112, second paragraph rejection above there is no indication that data regarding a clause is processed. What appears to be processed is the data regarding providing something. Arguably this is not useful, as merely providing a clause doesn't yield anything specific and substantial.

The Court of Appeals for the Federal Circuit issued opinions in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999). These decisions explained that, to be eligible for patent protection, the claimed invention as a

whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601 02. To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways: (a) The claimed invention “transforms” an article or physical object to a different state or thing. (b) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

The USPTO’s official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. See MPEP § 2107.

The tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application”). The claims do not meet this requirement.

For an invention to produce a “concrete” result, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is “irreproducible” claim should be rejected under section 101). The opposite of “concrete” is unrepeatable or unpredictable. The limitation of “any possible combination or permutation of principal size and interest rate” does not produce anything concrete. Similarly an agreement between a debtor and a creditor, providing that the instrument’s extension risk and credit risk be completely subject to the creditor’s and debtor’s control and providing that any options in the subject market are made explicit, priced, and used

to correlatively adjust the principal size, interest rate, and payment timing of the underlying obligation do not produce anything concrete.

There is no useful, concrete and tangible result produced from implementing the steps of the claimed invention. Claims 107, 109 and 111 are rejected for the same reason and by way of dependency on a rejected independent claim.

Response to Arguments

9. In response to Applicant's arguments and the affidavit's reasoning "[T]he invention enables receipt of cashflows from an instrument that pays more slowly than would otherwise seem likely or otherwise warranted. One of the chief problems vexing Wall Street at this hour, second only to curtailment and reorganization, is the prospect of payment streams that stretch so far into the future, based on a debtor's inability to refinance, that the resulting cashflows are severely attenuated by the basic concepts embedded within industry-standard time-value-of-money calculations. The invention addresses that problem.", the Examiner wishes to respectfully point out that it is not clear as to how implementing the steps of the claimed method leads to the solution to the problem that is identified in the affidavit. What is recited in the claims is, for instance, "processing in a computer processor data regarding providing clauses". There is no clear indication that the data regarding clauses are processed. Further it is not clear how, for instance, "providing that the instrument's sensitivity to parameter changes incorporates, unconstrained by time, an agreement by the debtor and the creditor upon the principal size and the interest rate chosen from any possible combination or permutation of principal size and interest rate" leads to the same solution every time the step is implemented.

In response to Applicant's arguments and the affidavit's reasoning "[U]sing an infinite choice-set as the domain for the applicant's problem does not create an unbounded solution set as the range As those of ordinary skill recognize, each market participant will use a choice-function to reduce the co-domain to an agreeably sized personal solution; where any two market participants agree upon the unique solution, tangible actions with concrete consequences will follow.", the Examiner wishes to respectfully point out that it is not clear at which step in the claimed invention each market participant uses a choice-function to reduce the co-domain to an agreeably sized personal solution and at which step two market participants agree upon the unique solution. While such steps may have been disclosed in the specification they are not in claimed invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to Applicant's arguments and the affidavit's reasoning "[T]hese options are not on some other instrument, and are not - initially - on the underlying instrument, but will be part of the underlying instrument. The options embedded in the interest bearing instrument will be priced as contingent claims on the underlying cashflows of that instrument and on the associated interest rates", the Examiner would like to respectfully point out that these features are not claimed as such. Features like "these options are not - initially - on the underlying instrument, but will be part of the underlying instrument" are not claimed. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

In response to applicant's assertion in the Applicant's communication of October 10, 2007, "Applicant hereby certifies his intention, with the means-plus-function language in computer-based system claims 105 and 107, to invoke 35 U.S.C. § 112 ¶16", the examiner would like to respectfully point out that the requirements for 35 U.S.C. § 112, sixth paragraph, have not been met. According to the MPEP, a claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis: (A) the claim limitations must use the phrase "means for" or "step for"; (B) the "means for" or "step for" must be modified by functional language; and (C) the phrase "means for" or "step for" must not be modified by sufficient structure, material, or acts for achieving the specified function. In this case, the "means for" has been modified by sufficient structure, material, or acts for achieving the specified function. The requirements for 35 U.S.C. 112, sixth paragraph have not been met in the claims as currently amended.

Applicant's other arguments with respect to pending claims have been considered but are not persuasive.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are listed on the enclosed PTO-892.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is (571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached at (571) 272-6771. The fax number for Formal or Official faxes and Draft to the Patent Office is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Narayanswamy Subramanian/
Primary Examiner
Art Unit 3691

July 29, 2008